INCIDENT: OTCW Oil to Lake Michigan

LOCATION: Whiting Refinery Lakefront, IN
SUBJECT: Oiled Shoreline Assessment (SCAT) Report
DATE: 28th March 2014

SURVEY TEAM:

Name:	Organization:
Ed Owens	BP-OCC
Stephane Grenon	BP-OCC
Jeremy Thomas	USCG
Beverly Kush	EPA
Verneta Simon	EPA
Sean Kane	EPA-START

Summary of SCAT activities:

- The scheduled sunken oil survey was cancelled due to weather. It is now planned for Sunday, 30th March.
- SCAT conducted a survey of segment A (small beach NE of water treatment plant). No oil was observed (NOO) on the entire length of the segment.

Oiling Observations:

SUMMARY

SEGMENT	SHORE TYPE	OBSERVED OILING
A	Coarse grain sand/gravel	30th - NOO
D	Rip Rap	NOO except for one 1 m sq patch of 1-10% tar balls, average 1-3 cm size, < 1 cm thick 27th – oiled band on the length of the segment 0.1 to 1.5 m wide, CT and 10-15% distribution
E	Sand, some shell hash	< 1% tar balls, average 0.5 to 1.0 cm size, < 1 cm thick 27th – no change
F	Pebble-cobble (frozen)	1 tar ball per meter length, average 1-3 cm size, < 1 cm thick 26th: section of oiled boom stranded on the shoreline that requires removal. 27th: < 1% oil/pebble conglomerates typically 2-5 cm CT decreasing to north.
G	Rip Rap	26th: NOO

SEGMENT A

- NOO (No Observed Oil) (survey conducted 30th March)

SEGMENT D

- NOO (No Observed Oil) on the sheet metal or rip rap material adjacent to the outfall based on

observations from the walkway above the outfall and from the adjacent scaffolding that crosses down to the water line. (Note: the rip rap materials are very light in color which facilitated observations had any black oil been present on the outer surfaces of the rip rap). This observation was confirmed by the afternoon boat survey (March 26th).

- An area approximately 1 m square of 1-10% distribution of tar balls was observed at the most southern end of the rip rap at the junction with the sand beach of Segment E. The oil was a semi solid, shiny black COVER/COAT of 1-3 cm size tar balls. (COVER = 0.1-1.0 cm thick: COAT = <0.1 cm thick).
- 27th: oiled band exposed by lower water level along the segment varied 0.1 to 1.5 m wide, CT and 10-15% distribution: one small patch of silver sheen observed otherwise oil appeared stable and unlikely to be remobilized.

SEGMENT E

- Surface oil was observed at less than a 1% distribution of tar balls, the majority of which were 0.5-1.0 cm diameter with a maximum of 5 cm size.
- Similar low concentrations were observed in two small areas (several meters long) of shell hash.
- Many "false positives" were observed that included coal, wood, shell and vegetation.
- The fine sand size and the hard, frozen nature of the beach would not have been conducive to penetration or burial. Future surveys will include pitting to determine any presence of subsurface oil.
- 27th: no change < 1%

SEGMENT F

- Surface oil tar balls were observed at a frequency of 1 per 1-m length (distribution <1%) on the pebble-cobble sediments. These tar balls were typically COAT thickness and in the 1-3 cm size range with an observed maximum of 10 cm.
- The pebble-cobble sediments were frozen with wave swash/spray so no penetration was likely.
- 26th: A section of 200' of oiled boom stranded on the shoreline was observed
- 27th: ground survey observed < 1% oil/pebble conglomerates typically 2-5 cm (one large 20cm size) typically CT, distribution decreased to north. Oiled boom was removed (see attached photos).

SEGMENT G

- 26th: NOO (No Observed Oil) on rip rap material. (Note: the rip rap materials are very light in color which facilitated observations had any black oil been present on the outer surfaces of the rip rap).

Future Activities:

- Saturday 29th March: Calibration with clean up crew doing beach sweeps;
- Sunday 30th March
  - AM: SCAT survey of segments D, E, F
  - PM: Sunken oil survey weather permitting
- Thursday 3rd April: SCAT survey of segments D, E, F
- Prepare revisions and updates to this SCAT report as appropriate following each day of observations.

Treatment Recommendations:

- Recommend the need for one small (approximately 5 person) shoreline cleanup crew.
- Recommended that the crew:

- sweep the area within approximately 10 feet of the water line,
- remove any oil larger than 1 inch that is accessible and that can be picked up by hand or with a shovel,
- rake the two shell hash areas, spread out the shells, pick up oily clumps >1 inch size,
- do not scrape oil from hard surfaces (rip rap material) or pebbles-cobbles,
- sweep twice each day, once early in the morning and once in late afternoon, and
- beginning at the most easterly accessible point in Segment F and working towards the west to end at the rip rap in segment D.

- No vehicles or night lights are recommended for use in Segment E for shoreline cleanup.
- Avoid foot traffic and all vehicle traffic in the vegetated areas (even if the plants appear "dead").
- Set aside the waste bags so that they can be inspected at the end of each day.